

# TA-F22ESR/F530ES

## SERVICE MANUAL

Canadian Model  
AEP Model  
UK Model  
TA-F530ES  
E Model  
TA-F22ESR

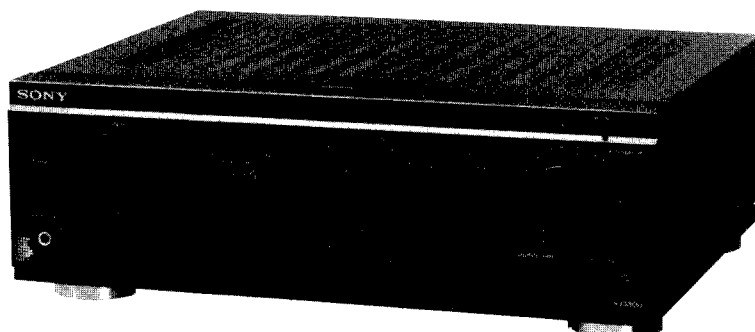


photo : TA-F530ES

### SPECIFICATIONS

#### Amplifier section

Item	Condition		Data
Continuous RMS power outut (both channels driven simultaneously)	4 ohms, 20 Hz-20 kHz THD 0.008%	Canadian, UK, E model	120 W + 120 W (THD 0.01%) (DIN: 160 W + 160 W)
	6 ohms, 20 Hz-20 kHz THD 0.006%	Canadian, UK, E model	100 W + 100 W (DIN: 120 W + 120 W)
		AEP, West Germany model	95 W + 95 W (DIN: 115 W + 115 W)
	8 ohms, 20 Hz-20 kHz THD 0.004%	Canadian, UK, E model	90 W + 90 W (DIN: 110 W + 110 W)
		AEP, West Germany model	80 W + 80 W (DIN: 100 W + 100 W)
Power band width (IHF)	8 ohms, THD 0,02%		10 Hz - 100 kHz at 45 W
Dynamic headroom (*78 IHF)	4 ohms		2 dB
	8 ohms		1.2 dB
Total harmonic distortion	8 ohms, at 10 watt output		0.003%
Intermodulation (IM) distortion 60 Hz: 7 kHz = 4:1	4 ohm, at rated output		0.008%
	6 ohms at rated output		0.006%
	8 ohms at rated output		0.004%
Damping factor	8 ohms, 1 kHz		50
Residual noise	network A		less than 90µV
Frequency response	PHONO MM		RIAA equalization curve ±0.2 dB
	TUNER, CD, TAPE 1, 2, 3, DIRECT IN		2 Hz - 200 kHz $\begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$ dB

—Continued on page 2—



INTEGRATED STEREO AMPLIFIER  
**SONY**®

Item	Condition		Data
Input sensitivity	PHONO	MC	0.17 mV, 100 ohms.
		MM	2.5 mV, 50 kohms
	TUNER, CD, DIRECT IN, TAPE 1, 2, 3 ADAPTOR IN		150 mV, 50 kohms
S/N (network)  *78 (IHF)	PHONO	MC	68 dB 76 dB* (A)
		MM	80 dB 87 dB* (A)
	TUNER, CD, DIRECT IN, TAPE 1, 2, 3 ADAPTOR IN		84 dB 105 dB* (A)
Output voltage impedance	REC OUT 1, 2, 3 ADAPTOR OUT		150 mV, 1 kohm
	HEADPHONES		25 miliwatts (at 8 ohms) Accepts low and high impedance headphones.
Tone controls	BASS, at 100 Hz		±6 dB (turnover freq. 400 Hz)
	TREBLE, at 10 kHz		±6 dB (freq. 4 kHz)

### General

**System** Preamplifier section: Low-noise high gain NFB type equalizer amplifier, passive type direct tone control  
Power amplifier section: Pure-complementary SEPP power amplifier

### Power requirements

AEP, West Germany model : 220 V AC, 50 Hz  
U K model: 240 V AC, 50 Hz  
E model : 120 V, 220 V or 240 V AC  
adjustable, 50/60 Hz  
Canadian model : 120 V AC, 50/60Hz

### Power consumption

Canadian model	510 VA
AEP, UK, West Germany model	220 W
UK model	600 W
E model	340 W

### AC outlet

Canadian model	2 switched, 1 unswitched, 100 watts max. each
AEP, UK, West Germany model	—
E model	1 switched, 1 unswitched, 100 watts each

### Dimensions

Approx. 430 x 150 x 370 mm (w/h/d)  
(17 x 5<sup>7</sup>/<sub>8</sub> x 14<sup>9</sup>/<sub>16</sub> inches)

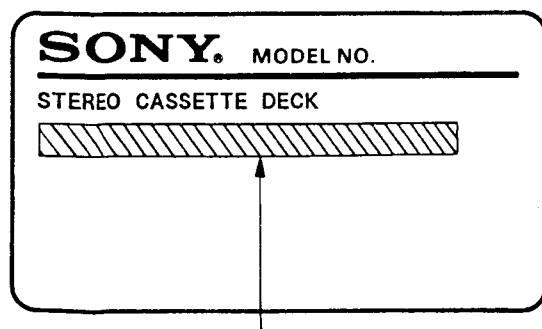
### Weight

Approx. 13.5 kg (29 lbs 13 oz) net

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### MODEL IDENTIFICATION

— Specification Label —



Canadian model : AC 120V 60Hz

AEP, West Germany model : AC 220V~50/60Hz

UK model : AC 240V~50/60Hz

E model : AC 120/220/240V~50/60Hz

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SERVICING NOTES


On operating voltage  
Before operating the unit, check that the operating voltage of your unit is identical with the voltage of your local power supply.

Where purchased	Operating voltage
UK Model	240 V AC
Canadian Model	120V AC
AEP, West Germany Model	220 V AC
E Model	120 V, 220 V or 240 V AC adjustable by AC voltage selector

120V 240V 220V

VOLTAGE SELECTOR

SAFETY-RELATED COMPONENT WARNING!!  
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!  
LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

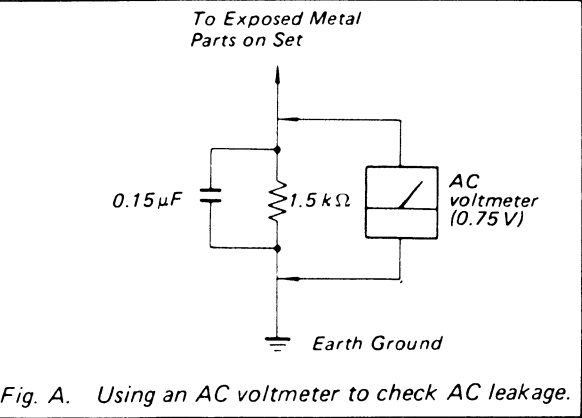
SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:  
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

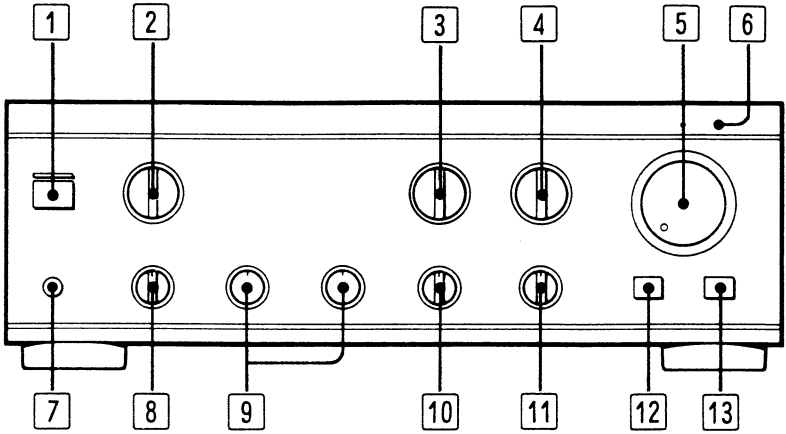
The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)



SECTION 1  
GENERAL

PARTS IDENTIFICATION



- 1

**POWER switch and power/standby indicator**  
Immediately after turning ON the power, the standby indicator lights in red as the built-in muting circuit activates.  
When the amplifier stays in a stable operating condition, the indicator lights in green.  
The indicator lights in red when the unit detects shorting of circuit of the speaker outputs or in case of short-circuit of the inputs of DC components.  
In such a case, disconnect the power source and check the connected components and speaker systems.
- 2

**SPEAKERS selector**  
Select speaker system A or B, or both.
- 3

**ADAPTOR/DIRECT IN switch**  
Set to NORMAL to select program source by INPUT SELECTOR. To listen to a program source processed through adaptor (graphic equalizer, for example) connected to ADAPTOR jacks, set the selector to ADAPTOR.  
To listen to a program source connected to DIRECT IN jacks, set it to DIRECT IN.  
Note that selecting ADAPTOR has no effect upon the signals output through the REC OUT jacks.
- 4

**INPUT SELECTOR**  
Selects the desired program source.
- 5

**ATTENUATOR knob**  
Regulates the sound level.
- 6

**MUTING switch and indicator**  
Generally, keep the switch released (OFF).  
Depress the switch to reduce the sound level by 20 dB. (Output voltage becomes 1/10.)
- 7

**HEADPHONES jack (stereo phone jack)**
- 8

**MODE selector**  
STEREO: For listening to a stereo program.  
MONO: For listening to a monaural program.
- 9

**BASS and TREBLE controls**
- 10

**REC OUT SELECTOR**  
Selects the program source sent to the REC OUT jacks (rear panel).
- 11

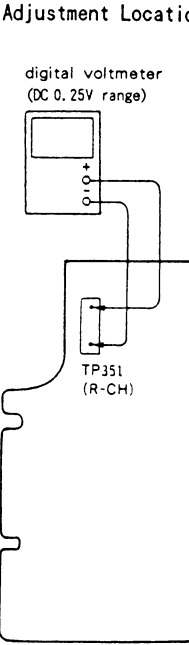
**BALANCE control**  
Controls the sound level of left and right speakers.
- 12

**SOURCE DIRECT switch and indicator**
- 13

**CARTRIDGE selector**  
Set the selector according to your cartridge.  
MM: For moving-magnet type cartridge  
MC: For moving-coil type cartridge

PRECAUTIONS

1. Adjust the id 10-15 minute
  2. Always make the power an
- [IDLING ADJUST**  
Procedure :  
Set the ATTENU adjust RT301 (L voltmeter reads 7



## SECTION 2 ELECTRICAL ADJUSTMENTS

### PRECAUTIONS

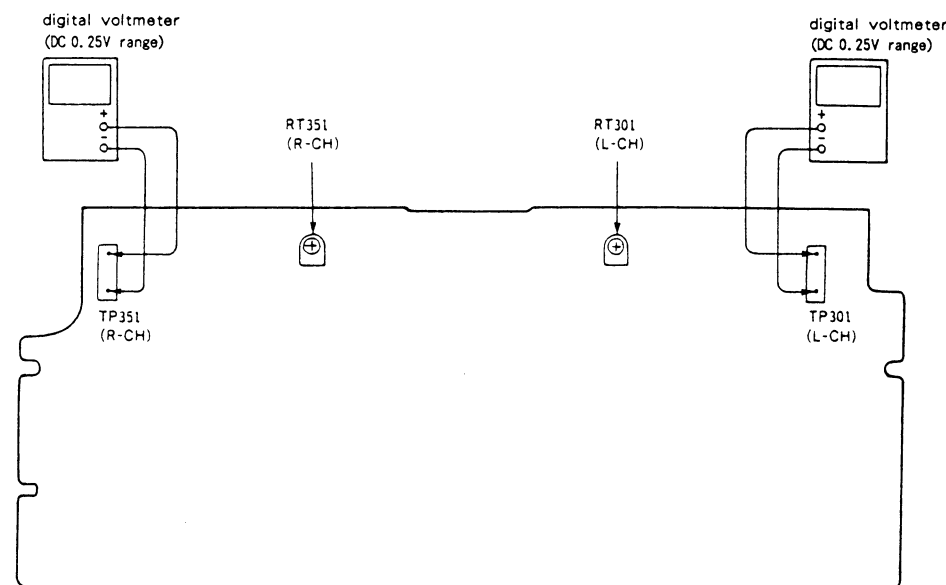
1. Adjust the idling after tuning the unit on for about 10-15 minutes, giving it time to warm up.
2. Always make sure to adjust the idling when repairing the power amp section or when replacing any parts.

### [IDLING ADJUSTMENT]

Procedure :

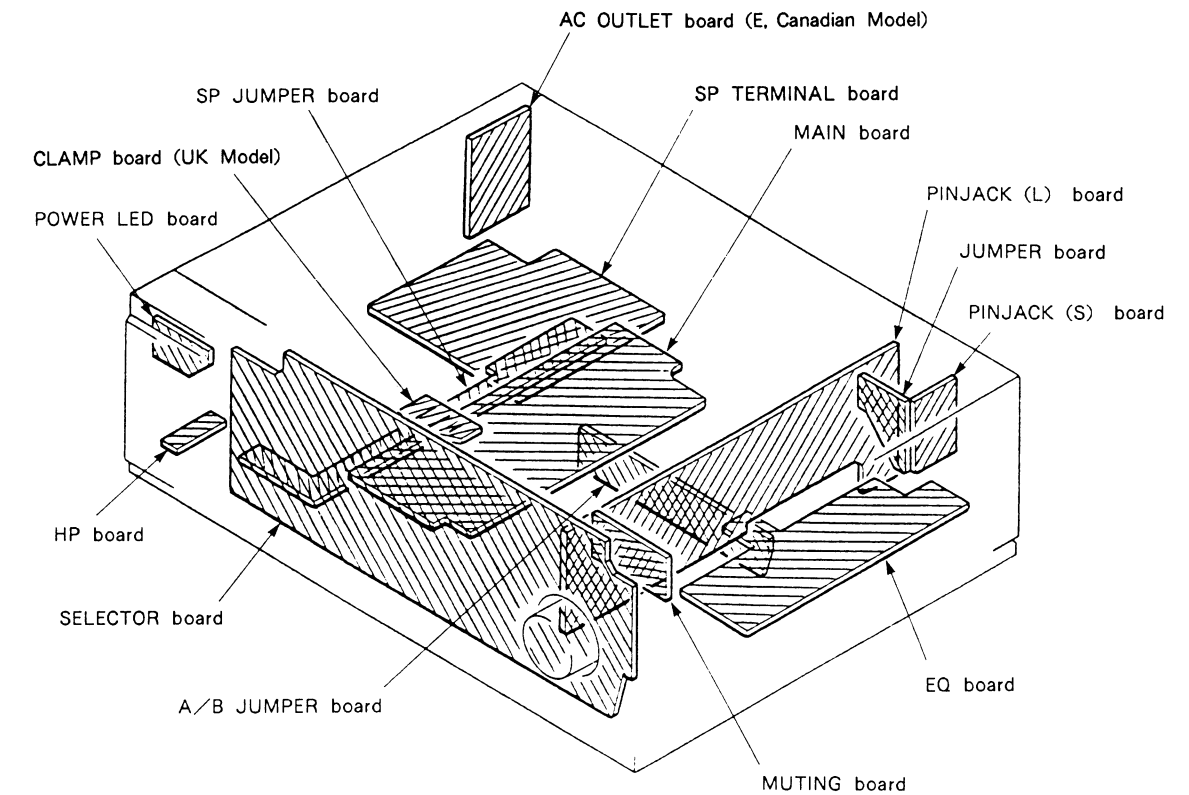
Set the ATTENUATOR control as low as possible and adjust RT301 (L-CH) and RT351 (R-CH) so that the voltmeter reads 7mV at TP301 (L-CH) and TP351 (R-CH).

Adjustment Location: power board



## SECTION 3 DIAGRAMS

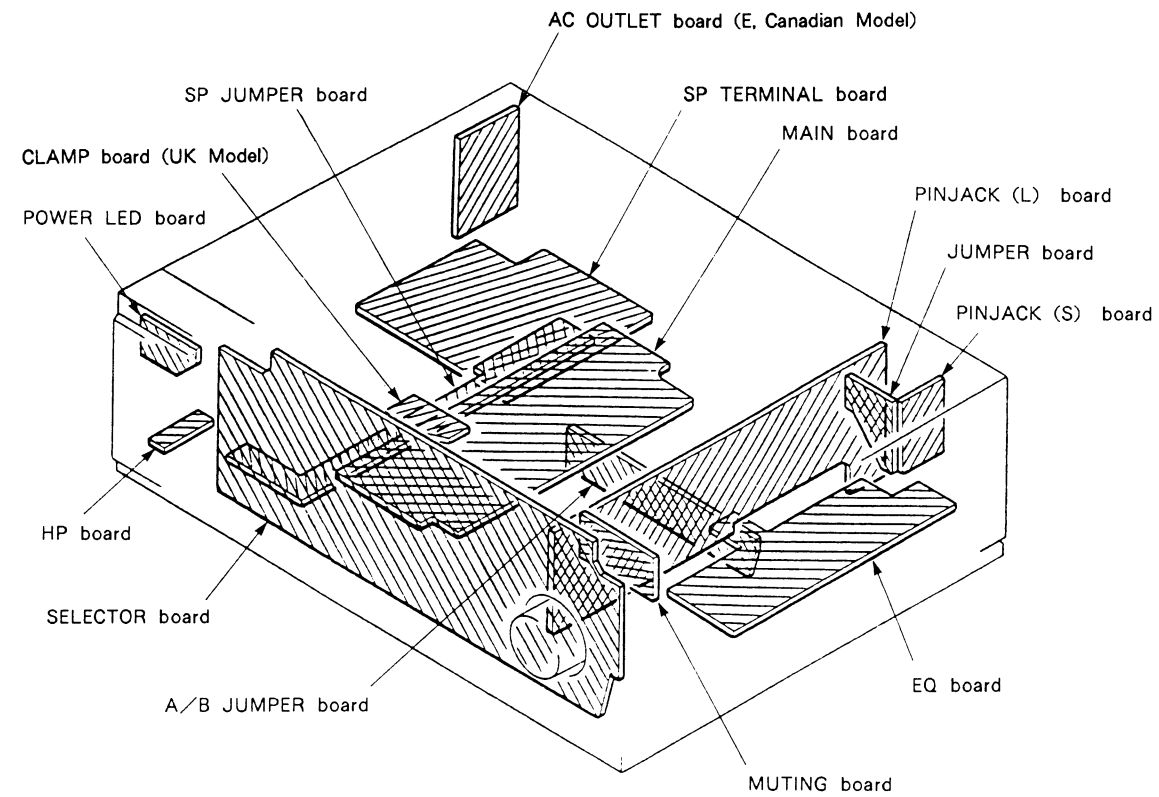
### CIRCUIT BOARD LOCATION



# SECTION 2 ADJUSTMENTS

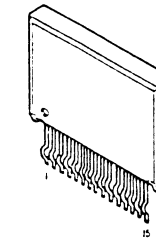
## SECTION 3 DIAGRAMS

### CIRCUIT BOARD LOCATION



### ● Semiconductor Lead Layouts

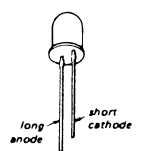
STK-3102-3



2SC3423



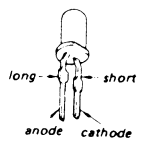
SEL2510C



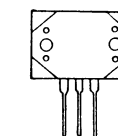
2SD774-3



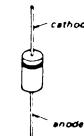
SEL2810A



2SA1215M-0  
2SC2921M-0



US1060M  
UZL-16L  
10E2N  
30DF2



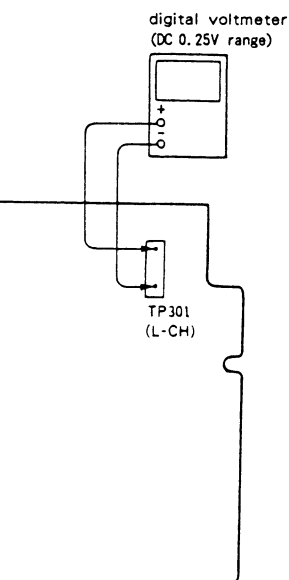
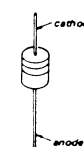
2SA733-Q  
2SA988-F  
2SC945-P  
2SC2545



2SA985A  
2SC2275-P

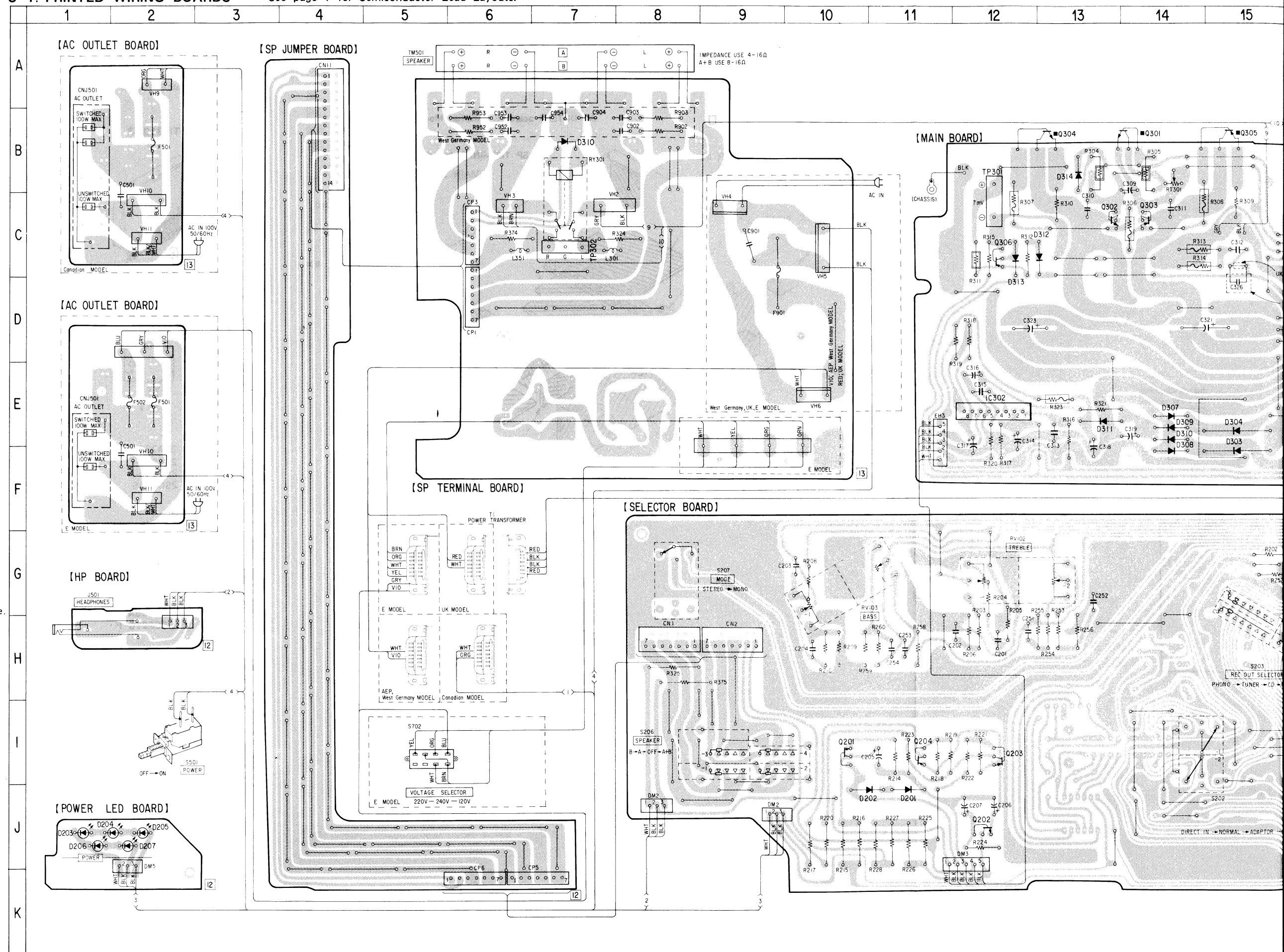


HZS-7B2L

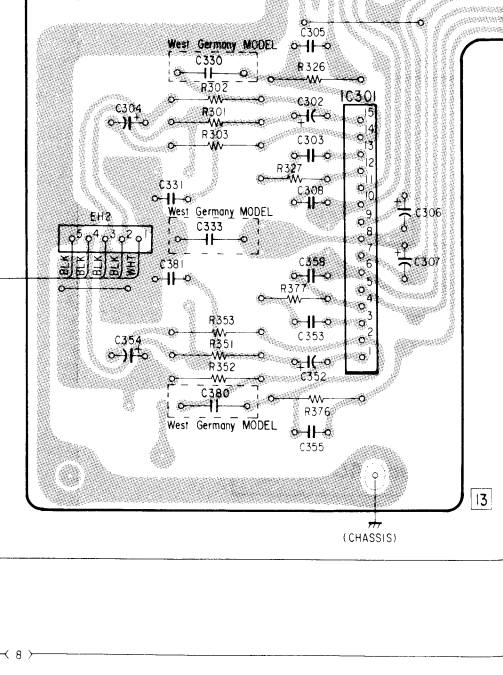
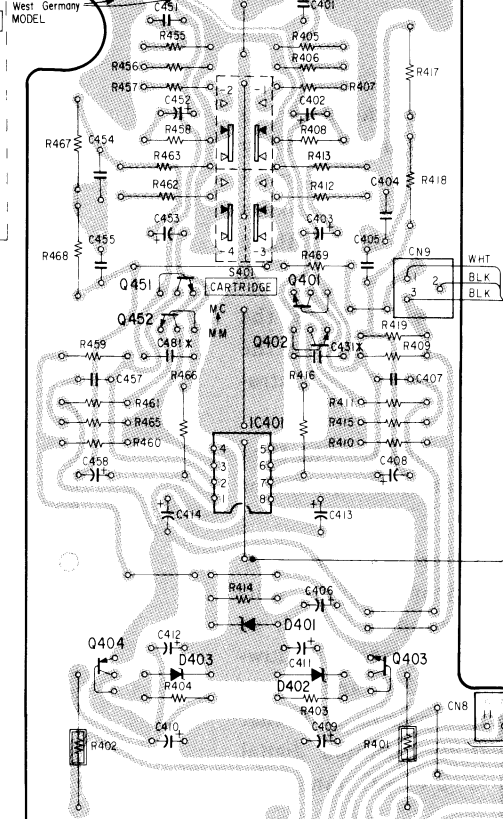
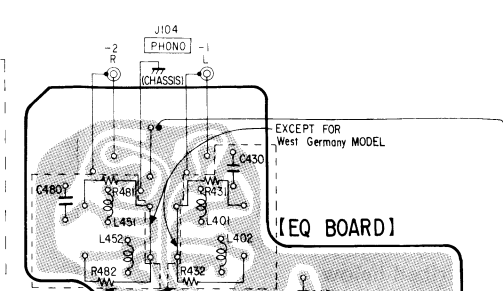
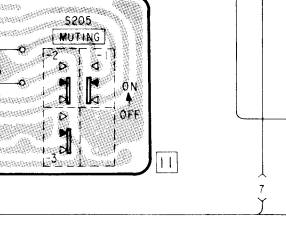
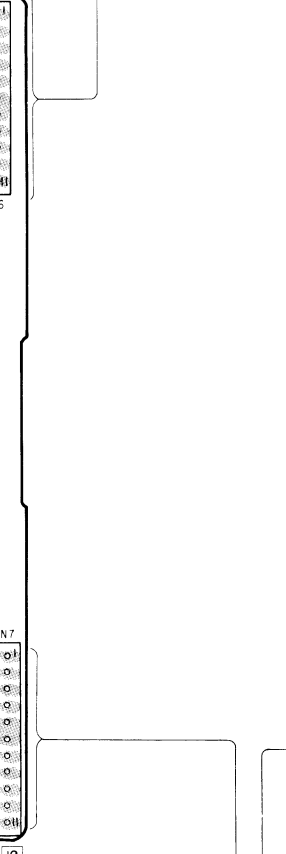
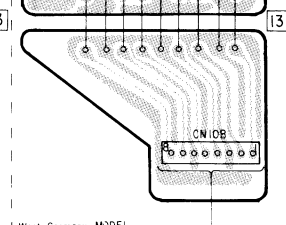
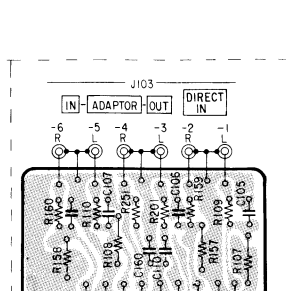
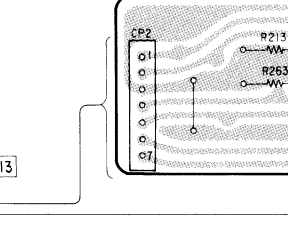
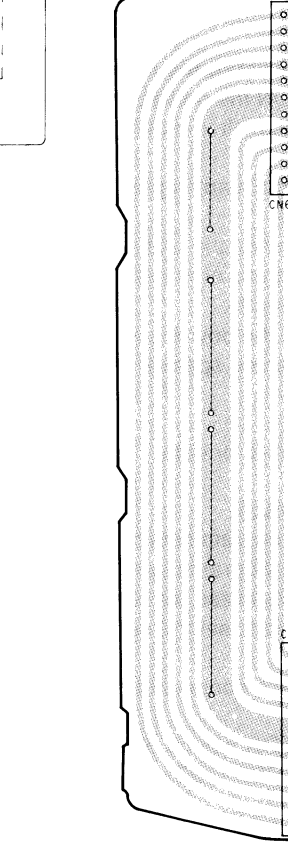
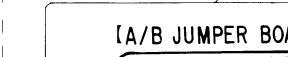
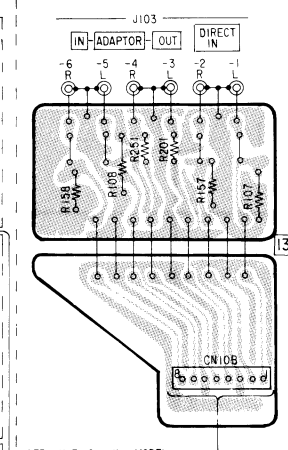
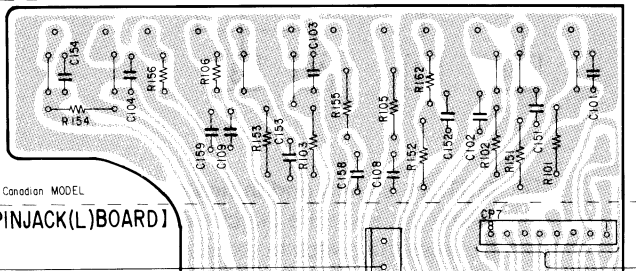
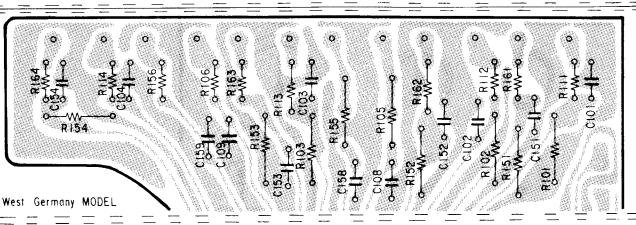
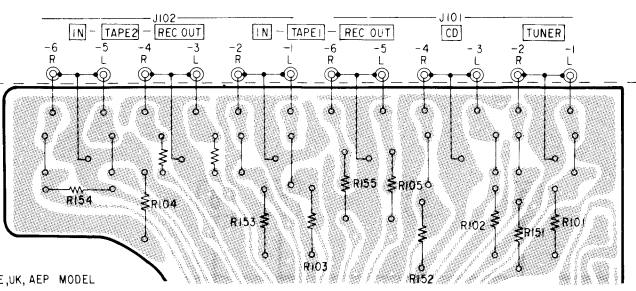
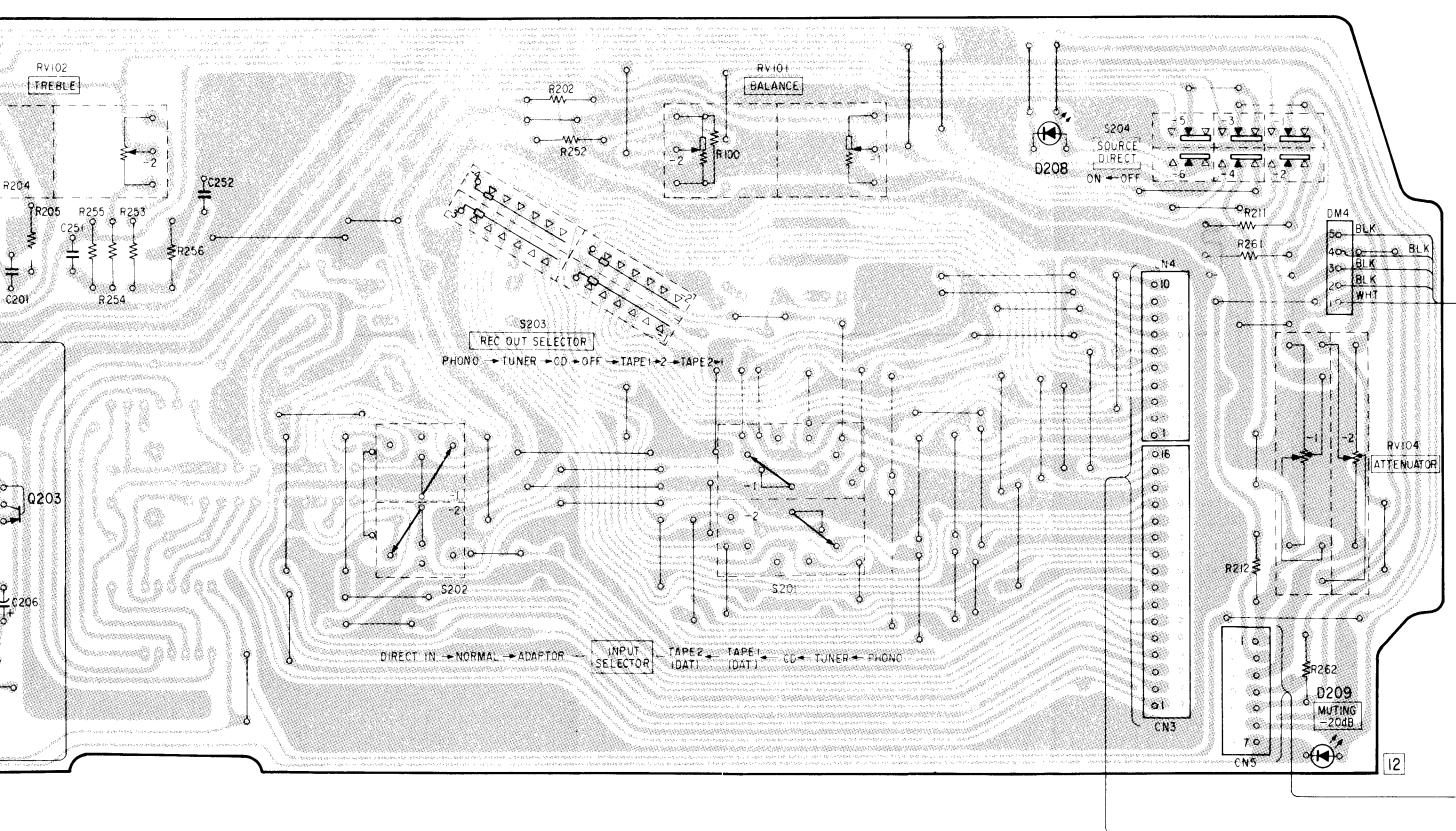
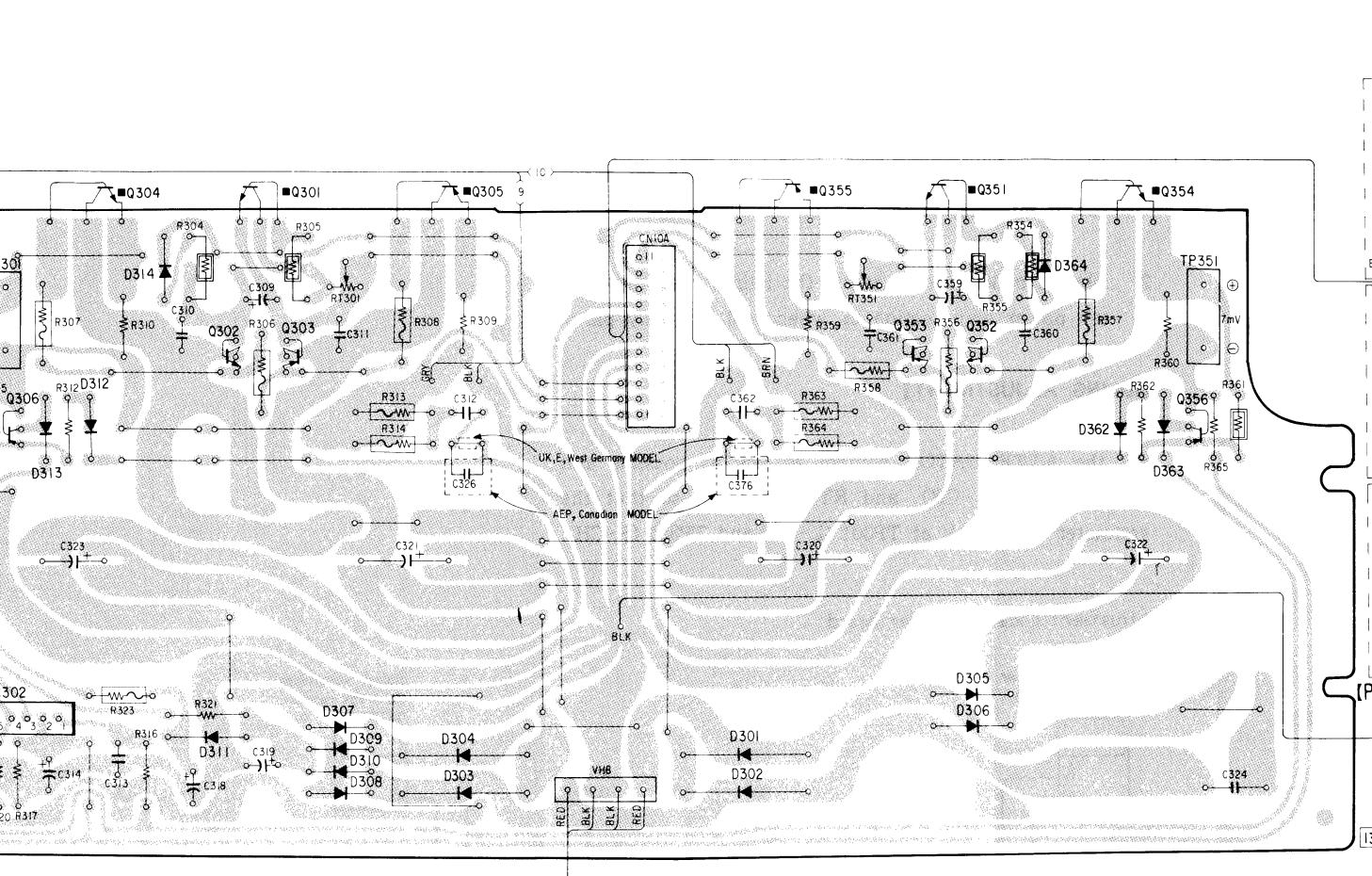


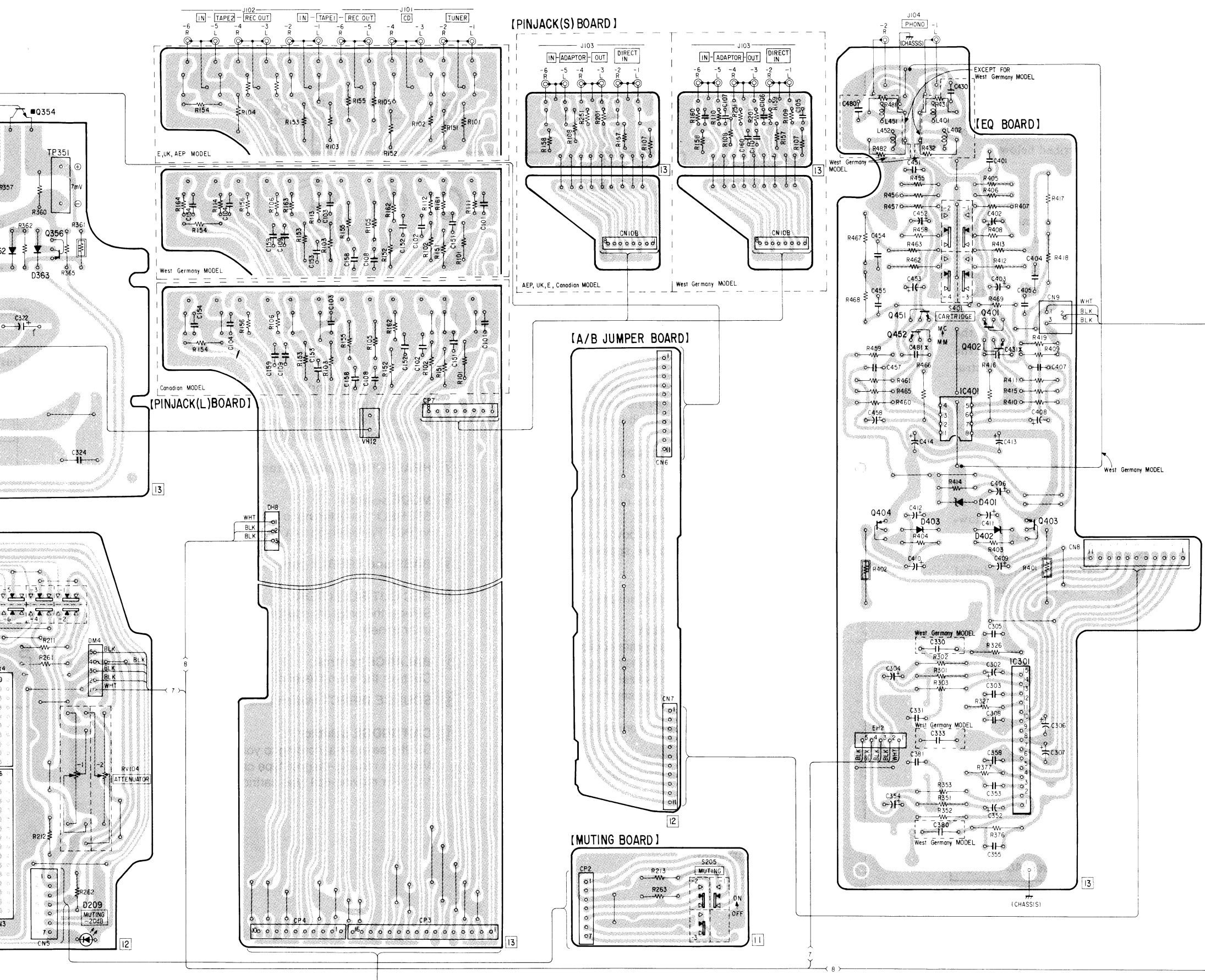
### ● Semiconductor Location

**Note on Printed Wiring Boards :**



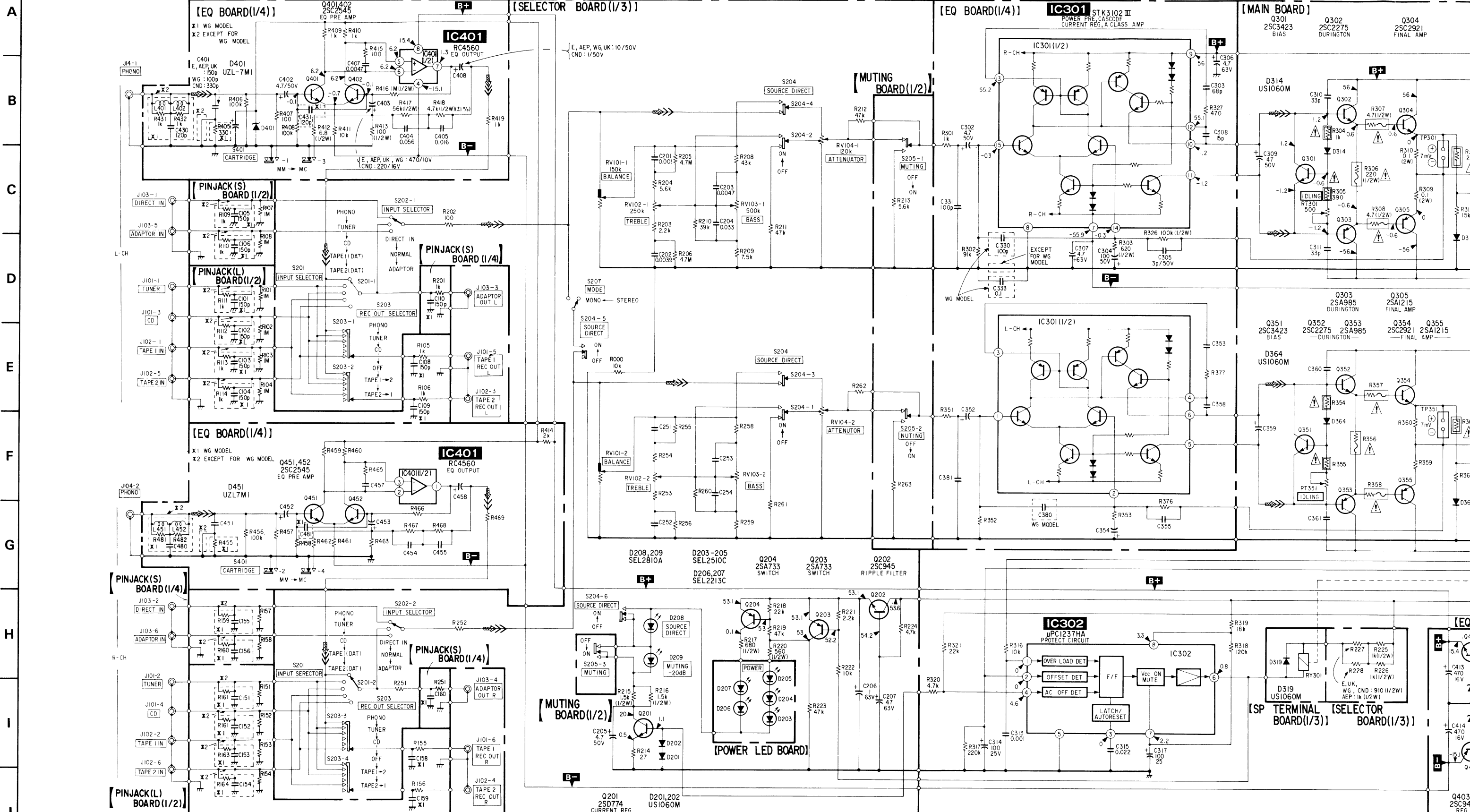


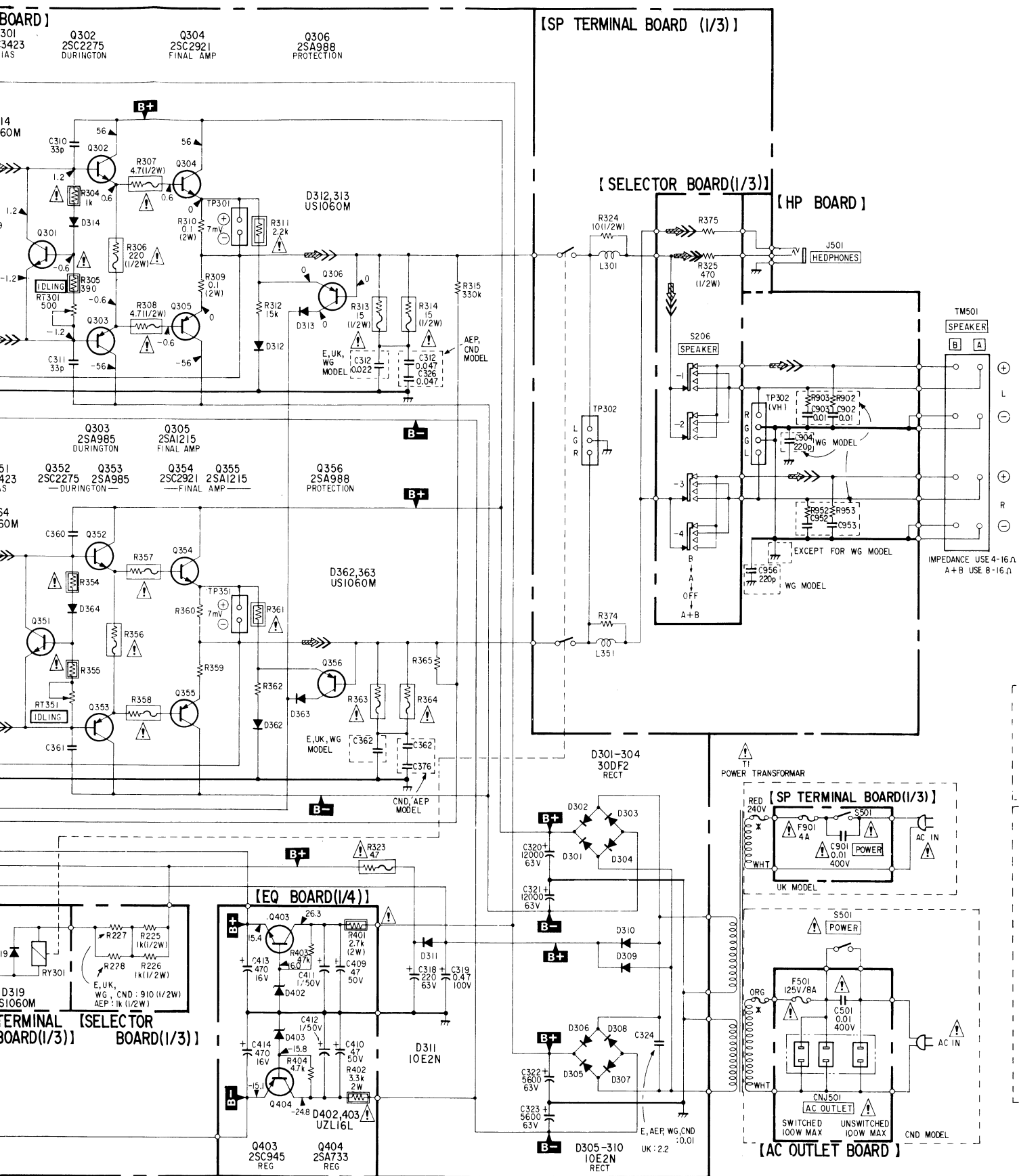








1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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**Note on Schematic Diagrams :**



- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- Components for right channel have same values as for left channel.
-  : nonflammable resistor.
-  : fusible resistor.

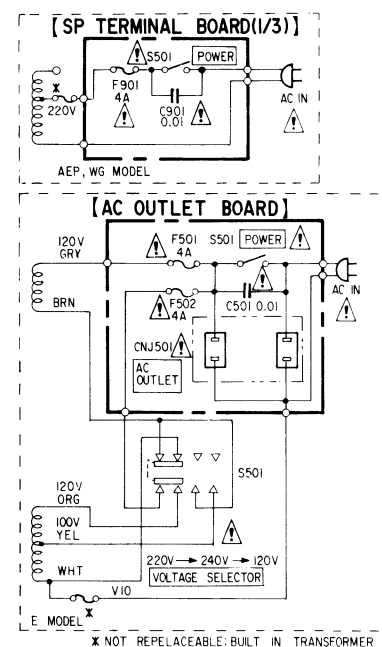
**Note:**

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

**Note:**

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

-  : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.  
no mark: PHONO
- Voltages are taken with a VOM.  
(Input impedance 10M  $\Omega$ )  
Voltage variations may be noted due to normal production tolerances.
- Signal path.  
 : PHONO
- WG : West Germany
- CND : Canadian






## SECTION 4 EXPLODED VIEWS

### NOTE:

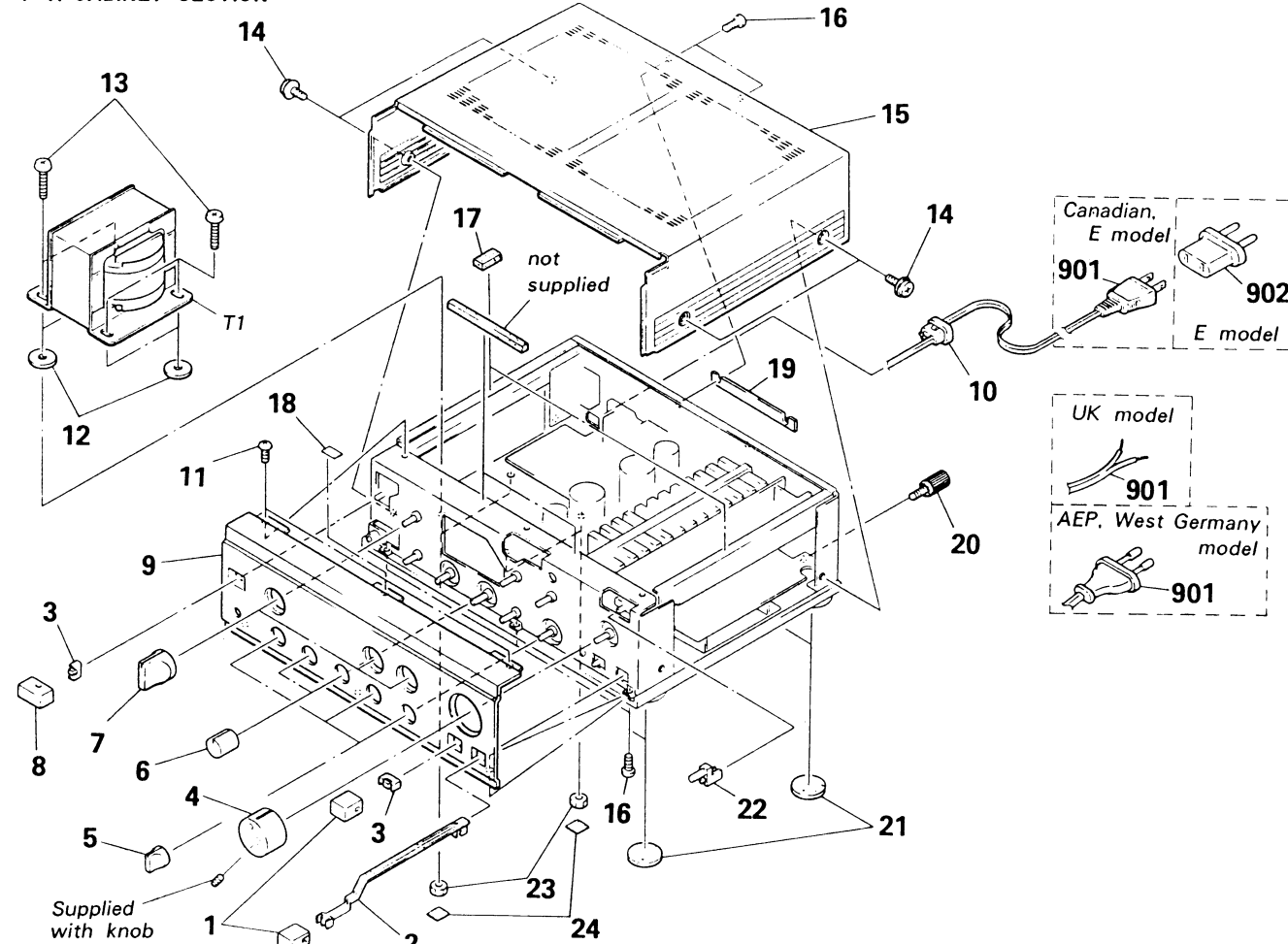
- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:  
(RED) ... KNOB, BALANCE (WHITE)  
↑ Cabinet's Color      ↑ Parts' Color
- WG: West Germany model

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

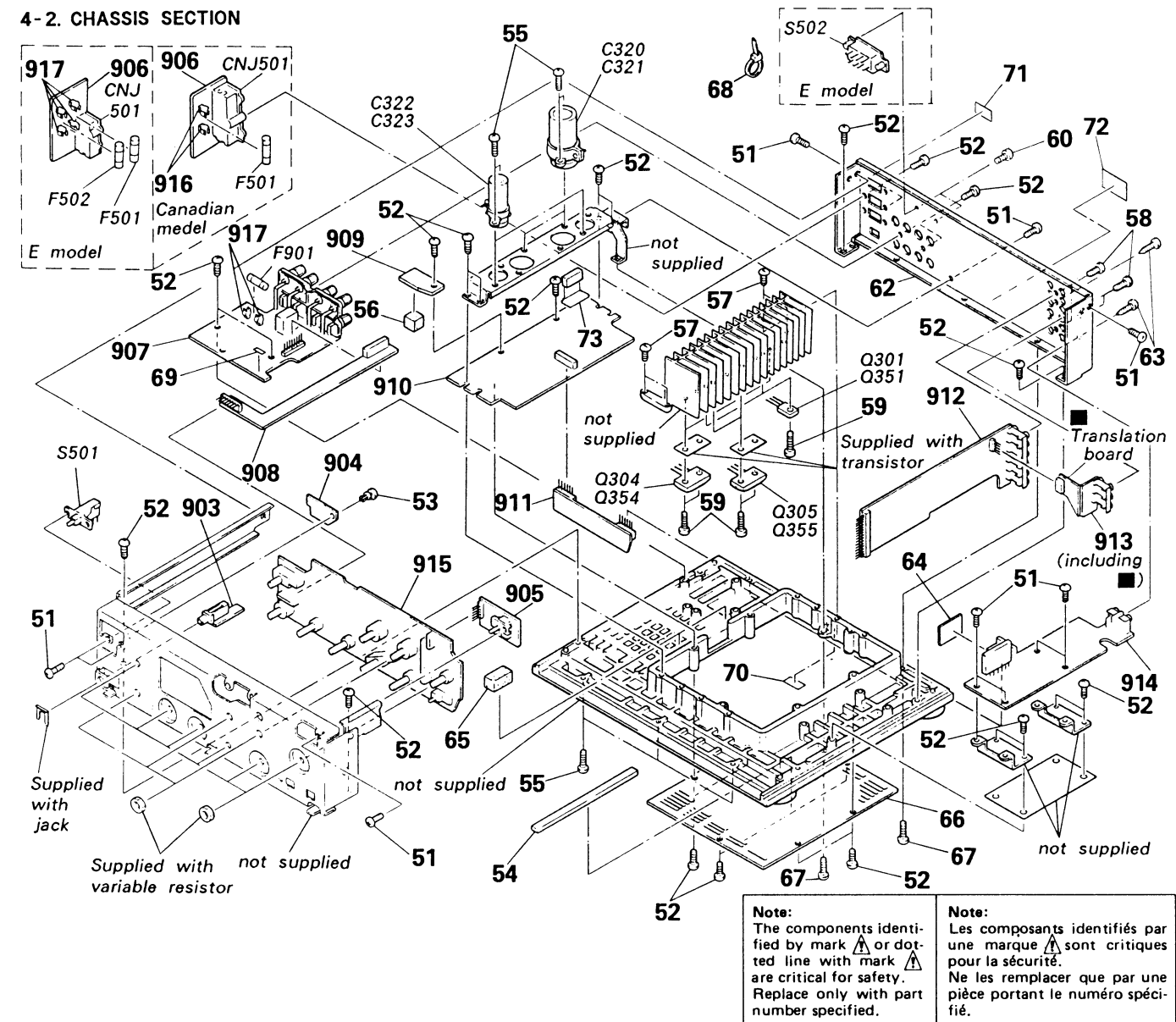
Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

### 4-1. CABINET SECTION



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	4-908-875-01	KNOB, SQUARE		16	7-685-873-09	SCREW +BVTT 3X10 (S)	
2	4-929-227-01	JOINT		17	*2-527-517-11	(UK)...CUSHION, CASE RETAINER	
3	4-864-307-00	RING		18	*3-840-067-21	(UK)...SPACER (C)	
4	4-929-224-01	KNOB (NA-48)		19	*4-929-232-01	SPACER	
5	4-916-745-01	KNOB (DIA.21)		20	3-706-165-00	SCREW	
6	4-916-746-11	KNOB (DIA. 21), ROUND		21	*4-923-850-01	FOOT (DIA. 46)	
7	4-916-729-01	KNOB (DIA.29)		22	4-923-879-01	BUTTON (DIA.4)	
8	4-908-856-01	KNOB, SQUARE		23	7-684-024-04	N 4, TYPE 2	
9	A-4317-962-A	(Canadian)...PANEL ASSY, FRONT		24	*4-929-266-01	CUSHION	
	A-4317-965-A	(AEP,WG,UK)...PANEL ASSY, FRONT		901	Δ1-551-478-00	(Canadian)...CORD, POWER	
	A-4323-063-A	(E)...PANEL ASSY, FRONT			Δ1-574-381-11	(E)...CORD, POWER	
10	3-703-244-00	(Canadian,AEP,WG,UK)...BUSHING, CORD			Δ1-574-804-11	(UK)...CORD, POWER	
	3-703-571-11	(E)...BUSHING (S) (4516), CORD			Δ1-574-805-11	(AEP,WG)...CORD, POWER	
11	7-682-547-09	SCREW +BVTT 3X6 (S)		902	Δ1-526-565-00	(E)...AC PLUG ADAPTOR	
12	4-885-984-21	(UK)...WASHER		T1	Δ1-449-685-11	(Canadian)...TRANSFORMER, POWER	
13	7-682-566-09	SCREW +B 4X20		T1	Δ1-449-687-11	(WG)...TRANSFORMER, POWER	
14	4-847-802-00	SCREW		T1	Δ1-449-688-11	(AEP)...TRANSFORMER, POWER	
15	4-916-737-01	(Canadian,WG,UK,E)...CASE		T1	Δ1-449-689-11	(UK)...TRANSFORMER, POWER	
	4-916-737-21	(AEP)...CASE		T1	Δ1-449-690-11	(E)...TRANSFORMER, POWER	

### 4-2. CHASSIS SECTION



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	7-682-547-09	SCREW +BVTT 3X6 (S)		908	*1-629-757-11	PC BOARD, SP JUMPER	
52	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		909	*1-630-146-11	(Canadian)...PC BOARD, CLAMP	
53	4-812-134-00	RIVET NYLON, 3.5		910	*A-4333-335-A	(WG,E)...MOUNTED PCB, MAIN	
54	*4-916-782-21	(UK)...DAMPER			*A-4333-343-A	(Canadian,AEP)...MOUNTED PCB, MAIN	
55	7-685-873-09	SCREW +BVTT 3X10 (S)			*A-4333-725-A	(UK)...MOUNTED PCB, MAIN	
56	*4-921-410-91	(UK)...CUSHION		911	*1-629-750-11	PC BOARD, A/B JUMPER	C101 1-1
57	7-685-650-79	SCREW +BVTP 3X16 TYPE2 SLIT		912	*1-629-758-11	PC BOARD, PINJACK (L)	C102 1-1
59	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3		913	*1-629-756-11	PC BOARD, PIN JACK (S)	C103 1-1
60	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S		914	*A-4333-336-A	(WG)...MOUNTED PCB, EQ	
62	*4-929-233-03	(Canadian)...PANEL, BACK			*A-4333-341-A	(AEP,E)...MOUNTED PCB, EQ	C104 1-1
	*4-929-233-11	(WG,UK)...PANEL, BACK			*A-4333-726-A	(UK)...MOUNTED PCB, EQ	C105 1-1
	*4-929-233-21	(AEP)...PANEL, BACK			*A-4358-218-A	(Canadian)...MOUNTED PCB, EQ	C106 1-1
	*4-929-280-01	(E)...PANEL, BACK		915	*A-4410-898-A	(Canadian,WG,UK,E)...MOUNTED PCB, SELECTOR	
63	7-621-849-00	SCREW, TAPPING		916	1-533-190-11	(Canadian)...CLIP, FUSE	C108 1-1
64	*4-916-782-61	(Canadian,UK)...DAMPER		917	1-533-183-11	(AEP,WG,UK,E)...HOLDER, FUSE	C109 1-1
65	*4-921-410-81	(UK)...CUSHION		C320	1-125-568-11	CAP, ELECT 12000MF	C152 1-1
66	*4-916-732-01	BOARD, BOTTOM		C321	1-125-568-11	CAP, ELECT 12000MF	C153 1-1
67	7-685-876-09	SCREW +BVTT 3X16 (S)		C322	1-125-569-11	CAP, ELECT 5600MF	C154 1-1
68	3-655-653-21	BAND (TAITON), BINDING		C323	1-125-569-11	CAP, ELECT 5600MF	
69	*3-701-948-20	(E)...LABEL (T4A), FUSE		CNJ501	Δ1-540-041-21	(E)...OUTLET, AC (AC OUTLET)	
70	*3-703-079-21	(Canadian)...LABEL, CAUTION (BACK)		CNJ501	Δ1-540-062-31	(Canadian)...OUTLET, AC (AC OUTLET)	
71	*3-703-270-00	(Canadian)...LABEL, AC 120V 60Hz		F501	Δ1-532-350-00	(E)...FUSE, TIME-LAG 4A	C155 1-1
72	*4-929-270-01	(Canadian)...LABEL, MODEL NUMBER		F501	Δ1-532-510-00	(Canadian)...FUSE, GLASE TUBE 8A	C156 1-1
	*4-929-272-01	(WG)...LABEL, MODEL NUMBER		F502	Δ1-532-350-00	(E)...FUSE, TIME-LAG 4A	C158 1-1
	*4-929-273-01	(UK)...LABEL, MODEL NUMBER		F901	Δ1-532-350-00	(AEP,WG,UK)...FUSE, TIME-LAG 4A	
	*4-929-274-01	(E)...LABEL, MODEL NUMBER		Q301	8-729-203-45	TRANSISTOR 2SC3423	C159 1-1
	*4-931-906-01	(AEP)...LABEL, MODEL NUMBER		Q304	8-729-320-03	TRANSISTOR 2SC2921M-0	C201 1-1
73	*4-921-941-31	(UK)...CUSHION (FL)		Q305	8-729-320-01	TRANSISTOR 2SA1215M-0	C202 1-1
903	*1-629-749-11	PC BOARD, HP		Q351	8-729-203-45	TRANSISTOR 2SC3423	
904	*1-629-751-11	PC BOARD, POWER LED		Q354	8-729-320-03	TRANSISTOR 2SC2921M-0	
905	*1-629-747-11	PC BOARD, MUTING		Q355	8-729-320-01	TRANSISTOR 2SA1215M-0	
906	*1-629-755-11	PC BOARD, AC OUTLET		S501	Δ1-554-920-31	SWITCH, PUSH (AC POWER)(1 KEY)(POWER)	
907	*1-629-753-11	PC BOARD, SP TERMINAL		S502	Δ1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR)	

### NOTE:

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are any such as a circuit part, resistors in

Ref.No.	Part No.	Description
901	Δ1-551-478-00	(Canadian)...CORD, POWER
902	Δ1-574-381-11	(E)...CORD, POWER
903	Δ1-574-804-11	(UK)...CORD, POWER
904	Δ1-574-805-11	(AEP,WG)...CORD, POWER
905	*1-629-750-11	PC BOARD, A/B JUMPER
906	*1-629-758-11	PC BOARD, PINJACK (L)
907	*1-629-756-11	PC BOARD, PIN JACK (S)
908	*1-629-757-11	PC BOARD, SP JUMPER
909	*1-630-146-11	(Canadian)...PC BOARD, CLAMP
910	*A-4333-335-A	(WG,E)...MOUNTED PCB, MAIN
911	*A-4333-343-A	(Canadian,AEP)...MOUNTED PCB, MAIN
912	*A-4333-725-A	(UK)...MOUNTED PCB, MAIN
913	*1-629-750-11	PC BOARD, A/B JUMPER
914	*1-629-758-11	PC BOARD, PINJACK (L)
915	*1-629-756-11	PC BOARD, PIN JACK (S)
916	*A-4333-336-A	(WG)...MOUNTED PCB, EQ
917	*A-4333-341-A	(AEP,E)...MOUNTED PCB, EQ
918	*A-4333-726-A	(UK)...MOUNTED PCB, EQ
919	*A-4358-218-A	(Canadian)...MOUNTED PCB, EQ
920	*A-4410-898-A	(Canadian,WG,UK,E)...MOUNTED PCB, SELECTOR
921	1-533-190-11	(Canadian)...CLIP, FUSE
922	1-533-183-11	(AEP,WG,UK,E)...HOLDER, FUSE
923	1-125-568-11	CAP, ELECT 12000MF
924	1-125-568-11	CAP, ELECT 12000MF
925	1-125-569-11	CAP, ELECT 5600MF
926	1-125-569-11	CAP, ELECT 5600MF
927	Δ1-540-041-21	(E)...OUTLET, AC (AC OUTLET)
928	Δ1-540-062-31	(Canadian)...OUTLET, AC (AC OUTLET)
929	Δ1-532-350-00	(E)...FUSE, TIME-LAG 4A
930	Δ1-532-510-00	(Canadian)...FUSE, GLASE TUBE 8A
931	Δ1-532-350-00	(E)...FUSE, TIME-LAG 4A
932	Δ1-532-350-00	(AEP,WG,UK)...FUSE, TIME-LAG 4A
933	8-729-203-45	TRANSISTOR 2SC3423
934	8-729-320-03	TRANSISTOR 2SC2921M-0
935	8-729-320-01	TRANSISTOR 2SA1215M-0
936	8-729-203-45	TRANSISTOR 2SC3423
937	8-729-320-03	TRANSISTOR 2SC2921M-0
938	8-729-320-01	TRANSISTOR 2SA1215M-0
939	Δ1-554-920-31	SWITCH, PUSH (AC POWER)(1 KEY)(POWER)
940	Δ1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR)

# SECTION 5 ELECTRICAL PARTS LIST

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

## CAPACITORS:

MF:  $\mu$ F, PF:  $\mu$ MF.

## RESISTORS

- All resistors are in ohms.
- F: nonflammable

## COILS

- MMH: mH, UH:  $\mu$ H

## SEMICONDUCTORS

In each case, U:  $\mu$ , for example:  
UA...:  $\mu$ A..., UPA...:  $\mu$ PA...,  
UPC...:  $\mu$ PC, UPD...:  $\mu$ PD...

- WG: West Germany model

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description
901	$\Delta$ 1-551-478-00	(Canadian)...CORD, POWER
	$\Delta$ 1-574-381-11	(E).....CORD, POWER
	$\Delta$ 1-574-804-11	(UK).....CORD, POWER
	$\Delta$ 1-574-805-11	(AEP,WG).....CORD, POWER
902	$\Delta$ 1-526-565-00	(E)....AC PLUG ADAPTOR
903	*1-629-749-11	PC BOARD, HP
904	*1-629-751-11	PC BOARD, POWER LED
905	*1-629-747-11	PC BOARD, MUTING
906	*1-629-755-11	PC BOARD, AC OUTLET
907	*1-629-753-11	PC BOARD, SP TERMINAL
908	*1-629-757-11	PC BOARD, SP JUMPER
909	*1-630-146-11	(Canadian)...PC BOARD, CLAMP
910	*A-4333-335-A	(WG,E).....MOUNTED PCB, MAIN
	*A-4333-343-A	(Canadian,AEP).....MOUNTED PCB, MAIN
	*A-4333-725-A	(UK).....MOUNTED PCB, MAIN
911	*1-629-750-11	PC BOARD, A/B JUMPER
912	*1-629-758-11	PC BOARD, PINJACK (L)
913	*1-629-756-11	PC BOARD, PIN JACK (S)
914	*A-4333-336-A	(WG).....MOUNTED PCB, EQ
	*A-4333-341-A	(AEP,E).....MOUNTED PCB, EQ
	*A-4333-726-A	(UK).....MOUNTED PCB, EQ
	*A-4358-218-A	(Canadian)...MOUNTED PCB, EQ
915	*A-4410-898-A	(Canadian,WG,UK,E) ...MOUNTED PCB, SELECTOR
916	1-533-190-11	(Canadian)...CLIP, FUSE
917	1-533-183-11	(AEP,WG,UK,E)...HOLDER, FUSE
C101	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C102	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C103	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C104	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C105	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C106	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C108	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C109	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C151	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C152	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C153	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C154	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C155	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C156	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C158	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C159	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V
C201	1-130-471-00	MYLAR 0.001MF 5% 50V
C202	1-130-478-00	MYLAR 0.0039MF 5% 50V

Ref.No.	Part No.	Description
C203	1-130-479-00	MYLAR 0.0047MF 5% 50V
C204	1-136-159-00	FILM 0.033MF 5% 50V
C205	1-123-369-00	ELECT 4.7MF 20% 50V
C206	1-123-380-00	ELECT 1MF 20% 63V
C207	1-124-918-11	ELECT 47MF 20% 63V
C251	1-130-471-00	MYLAR 0.001MF 5% 50V
C252	1-130-478-00	MYLAR 0.0039MF 5% 50V
C253	1-130-479-00	MYLAR 0.0047MF 5% 50V
C254	1-136-159-00	FILM 0.033MF 5% 50V
C302	1-123-369-00	ELECT 4.7MF 20% 50V
C303	1-101-888-00	(E,AEP,WG)...CERAMIC 68PF 5% 50V
C303	1-104-276-00	(Canadian,UK) ...POLYSTYRENE 68PF 10% 50V
C304	1-123-360-00	(E,AEP,WG).....ELECT 100MF 20% 50V
C304	1-126-052-11	(Canadian,UK)...ELECT 100MF 20% 50V
C305	1-102-936-00	(E,AEP,WG)...CERAMIC 3PF 0.5PF 50V
C305	1-107-276-11	(Canadian,UK)...MICA 3PF 0.5% 500V
C306	1-123-369-00	(E,AEP,WG)...ELECT 4.7MF 20% 63V
C307	1-123-369-00	(E,AEP,WG)...ELECT 4.7MF 20% 63V
C308	1-102-951-00	(E,AEP,WG)...CERAMIC 15PF 5% 50V
C308	1-104-263-00	(Canadian,UK) ...POLYSTYRENE 15PF 10% 125V
C309	1-123-359-00	(E,AEP,WG,Canadian) ...ELECT 47MF 20% 50V
C309	1-124-910-11	(UK).....ELECT 47MF 20% 50V
C310	1-102-963-00	(E,AEP,WG,Canadian) ...CERAMIC 33PF 5% 50V
C310	1-107-159-00	(UK).....MICA 33PF 5% 500V
C311	1-102-963-00	(E,AEP,WG,Canadian) ...CERAMIC 33PF 5% 50V
C311	1-107-159-00	(UK).....MICA 33PF 5% 500V
C312	1-130-487-00	(E,WG,UK).....MYLAR 0.022MF 5% 50V
C312	1-136-161-00	(AEP,Canadian)...FILM 0.047MF 5% 50V
C313	1-130-471-00	MYLAR 0.001MF 5% 50V
C314	1-123-333-00	ELECT 100MF 20% 25V
C315	1-130-487-00	MYLAR 0.022MF 5% 50V
C317	1-123-333-00	ELECT 100MF 20% 25V
C318	1-123-604-00	ELECT 220MF 20% 63V
C319	1-123-379-00	ELECT 0.47MF 20% 100V
C320	1-125-568-11	CAP, ELECT 12000MF
C321	1-125-568-11	CAP, ELECT 12000MF
C322	1-125-569-11	CAP, ELECT 5600MF
C323	1-125-569-11	CAP, ELECT 5600MF

Ref.No.	Part No.	Description
C324	1-136-601-11	(E,AEP,WG,Canadian) ...FILM 0.01MF 10% 630V
C324	1-136-880-11	(UK).....FILM 2.2MF 10% 160V
C326	1-136-161-00	(AEP,Canadian)...FILM 0.047MF 5% 50V
C330	1-162-282-31	(WG).....CERAMIC 100PF 5% 50V
C331	1-102-973-00	(E,AEP,WG)...CERAMIC 100PF 5% 50V
C331	1-136-808-11	(Canadian,UK)...FILM 100MF 5% 100V
C333	1-161-370-00	(WG)...CERAMIC 0.01MF 30% 25V
C352	1-123-369-00	ELECT 4.7MF 20% 50V
C353	1-101-888-00	(E,AEP,WG)...CERAMIC 68PF 5% 50V
C353	1-104-276-00	(Canadian,UK) ...POLYSTYRENE 68PF 10% 50V
C354	1-123-360-00	(E,AEP,WG)...ELECT 100MF 20% 50V
C354	1-126-052-11	(Canadian,UK) ...ELECT 100PF 20% 50V
C355	1-102-936-00	(E,AEP,WG)...CERAMIC 3PF 0.5PF 50V
C355	1-107-276-11	(Canadian,UK)...MAIC 3PF 0.5PF 500V
C358	1-102-951-00	(E,AEP,WG)...CERAMIC 15PF 5% 50V
C358	1-104-263-00	(Canadian,UK) ...POLYSTYRENE 15PF 10% 125V
C359	1-123-359-00	(E,AEP,WG,Canadian) ...ELECT 47MF 20% 50V
C359	1-124-910-11	(UK).....ELECT 47MF 20% 50V
C360	1-102-963-00	(E,AEP,WG,Canadian) ...CERAMIC 33PF 5% 50V
C360	1-107-159-00	(UK).....MICA 33MF 5% 500V
C361	1-102-963-00	(E,AEP,WG,Canadian) ...CERAMIC 33PF 5% 50V
C361	1-107-159-00	(UK).....MICA 33MF 5% 500V
C362	1-130-487-00	(E,WG,UK)...MYLAR 0.022MF 5% 50V
C362	1-136-161-00	(AEP,Canadian) ...FILM 0.047MF 5% 50V
C376	1-136-161-00	(AEP,Canadian) ...FILM 0.047MF 5% 50V
C380	1-162-282-31	(WG)...CERAMIC 100PF 5% 50V
C381	1-102-973-00	(E,AEP,WG)...CERAMIC 100PF 5% 50V
C381	1-136-808-11	(Canadian,UK)...FILM 100PF 5% 100V
C401	1-101-361-00	(E,AEP).....CERAMIC 150PF 5% 50V
C401	1-102-112-00	(Canadian)...CERAMIC 330PF 10% 50V
C401	1-102-973-00	(WG).....CERAMIC 100PF 5% 50V
C401	1-104-282-11	(UK).....POLYSTYRENE 150PF 5% 50V
C402	1-123-369-00	ELECT 4.7MF 20% 50V
C403	1-124-472-11	(AEP,E,WG)...ELECT 470MF 20% 10V
C403	1-124-120-11	(Canadian)...ELECT 220MF 20% 16V
C403	1-126-103-11	(UK).....ELECT 470MF 20% 10V
C404	1-130-341-00	(UK,Canadian)...FILM 0.056MF 3% 100V
C404	1-136-162-00	(AEP,E,WG).....FILM 0.056MF 5% 50V
C405	1-130-971-00	(UK,Canadian)...FILM 0.016MF 3% 100V
C405	1-136-032-51	(AEP,E,WG).....FILM 0.016MF 5% 50V
C406	1-123-333-00	ELECT 100MF 20% 16V
C407	1-130-479-00	MYLAR 0.0047MF 5% 50V
C408	1-123-356-00	(E,AEP,WG)...ELECT 10MF 20% 50V
C408	1-123-380-00	(Canadian)...ELECT 1MF 20% 50V
C408	1-126-059-11	(UK).....ELECT 10MF 20% 50V
C409	1-123-359-00	(E,AEP,WG).....ELECT 47MF 20% 50V
C409	1-124-910-11	(UK,Canadian)...ELECT 47MF 20% 50V

Ref.No.	Part No.	Description
C410	1-123-359-00	(E,AEP,WG).....ELECT 47MF 20% 50V
C410	1-124-910-11	(UK,Canadian)...ELECT 47MF 20% 50V
C411	1-123-380-00	ELECT 1MF 20% 50V
C412	1-123-380-00	ELECT 1MF 20% 50V
C413	1-126-103-11	ELECT 470MF 20% 16V
C414	1-126-103-11	ELECT 470MF 20% 16V
C430	1-102-816-00	(WG)...CERAMIC 120PF 5% 50V
C431	1-162-282-31	(WG)...CERAMIC 100PF 5% 50V
C451	1-101-361-00	(E,AEP).....CERAMIC 150PF 5% 50V
C451	1-102-112-00	(Canadian)...CERAMIC 330PF 10% 50V
C451	1-102-973-00	(WG).....CERAMIC 100PF 5% 50V
C451	1-104-282-11	(UK).....POLYSTYRENE 150PF 5% 50V
C452	1-123-369-00	ELECT 4.7MF 20% 50V
C453	1-124-472-11	(E,AEP,WG)...ELECT 470MF 20% 10V
C453	1-124-120-11	(Canadian)...ELECT 220MF 20% 16V
C453	1-126-103-11	(UK).....ELECT 470MF 20% 10V
C454	1-130-341-00	(UK,Canadian)...FILM 0.056MF 3% 100V
C454	1-136-162-00	(E,AEP,WG).....FILM 0.056MF 5% 50V
C455	1-130-971-00	(UK,Canadian)...FILM 0.016MF 3% 100V
C455	1-136-032-51	(E,AEP,WG).....FILM 0.016MF 5% 50V
C457	1-130-479-00	MYLAR 0.0047MF 5% 50V
C458	1-123-356-00	(E,AEP,WG)...ELECT 10MF 20% 50V
C458	1-123-380-00	(Canadian)...ELECT 1MF 20% 50V
C458	1-126-059-11	(UK).....ELECT 10MF 20% 50V
C480	1-102-816-00	(WG)...CERAMIC 120PF 5% 50V
C481	1-162-282-31	(WG)...CERAMIC 100PF 5% 50V
C501	1-161-744-00	CERAMIC 0.01MF 400V
C902	1-136-153-00	(UK)...FILM 0.01MF 5% 50V
C903	1-136-153-00	(UK)...FILM 0.01MF 5% 50V
C904	1-102-978-00	(WG)...CERAMIC 220PF 5% 50V
C952	1-136-153-00	(UK)...FILM 0.01MF 5% 50V
C953	1-136-153-00	(UK)...FILM 0.01MF 5% 50V
C954	1-102-978-00	(WG)...CERAMIC 220PF 5% 50V
CN1	*1-561-651-00	SOCKET, CONNECTOR 7P
CN2	*1-561-651-00	SOCKET, CONNECTOR 7P
CN3	1-568-118-11	SOCKET, CONNECTOR 16P
CN4	*1-562-334-00	SOCKET, CONNECTOR 10P
CN5	*1-561-651-00	SOCKET, CONNECTOR 7P
CN6	1-568-203-11	PIN, CONNECTOR (PC BOARD) 11P
CN7	1-568-203-11	PIN, CONNECTOR (PC BOARD) 11P
CN8	*1-563-381-11	SOCKET, CONNECTOR 11P
CN9	*1-566-451-11	HOUSING, CONNECTOR 3P
CN10	*1-563-381-11	SOCKET, CONNECTOR 11P
CN11	1-568-117-11	SOCKET, CONNECTOR 14P
CN12	*1-565-484-11	CONNECTOR, BOARD TO BOARD 8P
CNJ501	1-540-041-21	(E)....OUTLET, AC (AC OUT LET)
CNJ501	1-540-062-31	(Canadian)...OUTLET, AC (AC OUT LET)
CNP604	*1-508-694-00	CONNECTOR PIN 8P
CP1	*1-560-532-00	PIN, CONNECTOR 7P
CP2	*1-560-532-00	PIN, CONNECTOR 7P
CP4	*1-568-202-11	PIN, CONNECTOR (PC BOARD) 10P



Note:  
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.


Note:  
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



Ref.No.	Part No.	Description
CP5	1-568-120-11	PIN, CONNECTOR (PC BOARD) 7P
CP6	1-568-120-11	PIN, CONNECTOR (PC BOARD) 7P
CP7	*1-568-204-11	PIN, CONNECTOR (PC BOARD) 16P
D201	8-719-000-26	DIODE US1060M
D202	8-719-000-26	DIODE US1060M
D203	8-719-303-00	DIODE SEL2510C
D204	8-719-303-00	DIODE SEL2510C
D205	8-719-303-00	DIODE SEL2510C
D206	8-719-300-82	DIODE SEL2213C
D207	8-719-300-82	DIODE SEL2213C
D208	8-719-301-49	DIODE SEL2810A
D209	8-719-301-49	DIODE SEL2810A
D301	8-719-230-02	DIODE 30DF2
D302	8-719-230-02	DIODE 30DF2
D303	8-719-230-02	DIODE 30DF2
D304	8-719-230-02	DIODE 30DF2
D305	8-719-200-77	DIODE 10E2N
D306	8-719-200-77	DIODE 10E2N
D307	8-719-200-77	DIODE 10E2N
D308	8-719-200-77	DIODE 10E2N
D309	8-719-200-77	DIODE 10E2N
D310	8-719-200-77	DIODE 10E2N
D311	8-719-200-77	DIODE 10E2N
D312	8-719-000-26	DIODE US1060M
D313	8-719-000-26	DIODE US1060M
D314	8-719-000-26	DIODE US1060M
D319	8-719-000-26	DIODE US1060M
D362	8-719-000-26	DIODE US1060M
D363	8-719-000-26	DIODE US1060M
D364	8-719-000-26	DIODE US1060M
D401	8-719-933-47	DIODE HZS7B2L
D402	8-719-001-97	DIODE UZL-16L
D403	8-719-001-97	DIODE UZL-16L
EH2	*1-564-508-11	PLUG, CONNECTOR 5P
EH3	*1-564-508-11	PLUG, CONNECTOR 5P
F501	△ 1-532-350-00	(E)....FUSE, TIME-LAG 4A
F501	△ 1-532-510-00	(Canadian)....FUSE, GLASE TUBE 8A
F502	△ 1-532-350-00	(E)....FUSE, TIME-LAG 4A
F901	△ 1-532-350-00	(AEP,WG,UK)....FUSE, TIME-LAG 4A
IC301	8-749-920-70	IC STK3102-3
IC302	8-759-111-68	IC UPC1237HA
IC401	8-759-981-96	IC RC4560D
J101	1-565-320-51	JACK, PIN 6P (TUNER/CD/TAPE1,RECOUT)
J102	1-565-320-41	JACK, PIN 6P (TAPE2/REC OUT)
J103	1-565-320-51	JACK, PIN 6P (ADAPTOR IN,OUT/DIRECT IN)
J104	1-568-250-11	JACK, PIN 2P (PHONE)
L301	*1-420-872-00	(E,AEP,WG,UK)....COIL, AIR CORE
L301	*1-420-872-31	(Canadian).....COIL, AIR CORE
L351	*1-420-872-00	(E,AEP,WG,UK)....COIL, AIR CORE
L351	*1-420-872-31	(Canadian).....COIL, AIR CORE
L401	1-413-101-00	(WG)....COIL INPUT
L402	1-413-101-00	(WG)....COIL INPUT
L451	1-413-101-00	(WG)....COIL INPUT
L452	1-413-101-00	(WG)....COIL INPUT
Q201	8-729-177-42	TRANSISTOR 2SD774-3
Q202	8-729-194-57	TRANSISTOR 2SC945P
Q203	8-729-713-36	TRANSISTOR 2SA733Q

Ref.No.	Part No.	Description
Q204	8-729-713-36	TRANSISTOR 2SA733Q
Q301	8-729-203-45	TRANSISTOR 2SC3423
Q302	8-729-127-53	TRANSISTOR 2SC2275-P
Q303	8-729-190-53	TRANSISTOR 2SA985A
Q304	8-729-320-03	TRANSISTOR 2SC2921M-0
Q305	8-729-320-01	TRANSISTOR 2SA1215M-0
Q306	8-729-108-04	TRANSISTOR 2SA988F
Q351	8-729-203-45	TRANSISTOR 2SC3423
Q352	8-729-127-53	TRANSISTOR 2SC2275-P
Q353	8-729-190-53	TRANSISTOR 2SA985A-P
Q354	8-729-320-03	TRANSISTOR 2SC2921M-0
Q355	8-729-320-01	TRANSISTOR 2SA1215M-0
Q356	8-729-108-04	TRANSISTOR 2SA988F
Q401	8-729-354-52	TRANSISTOR 2SC2545
Q402	8-729-354-52	TRANSISTOR 2SC2545
Q403	8-729-194-57	TRANSISTOR 2SC945P
Q404	8-729-173-36	TRANSISTOR 2SA733Q
Q451	8-729-354-52	TRANSISTOR 2SC2545
Q452	8-729-354-52	TRANSISTOR 2SC2545
R000	1-247-725-11	CARBON 10K 5% 1/4W
R101	1-246-545-00	CARBON 1M 5% 1/4W
R102	1-246-545-00	CARBON 1M 5% 1/4W
R103	1-246-545-00	CARBON 1M 5% 1/4W
R104	1-246-545-00	CARBON 1M 5% 1/4W
R105	1-247-713-11	CARBON 1K 5% 1/4W
R106	1-249-417-11	CARBON 1K 5% 1/4W
R107	1-246-545-00	CARBON 1M 5% 1/4W
R108	1-246-545-00	CARBON 1M 5% 1/4W
R109	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R110	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R111	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R112	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R113	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R114	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R151	1-246-545-00	CARBON 1M 5% 1/4W
R152	1-246-545-00	CARBON 1M 5% 1/4W
R153	1-246-545-00	CARBON 1M 5% 1/4W
R154	1-246-545-00	CARBON 1M 5% 1/4W
R155	1-247-713-11	CARBON 1K 5% 1/4W
R156	1-249-417-11	CARBON 1K 5% 1/4W
R157	1-246-545-00	CARBON 1M 5% 1/4W
R158	1-246-545-00	CARBON 1M 5% 1/4W
R159	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R160	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R161	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R162	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R163	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R164	1-249-417-11	(WG)....CARBON 1K 5% 1/4W
R201	1-249-417-11	CARBON 1K 5% 1/4W
R202	1-247-700-11	CARBON 100 5% 1/4W
R203	1-247-717-11	CARBON 2.2K 5% 1/4W
R204	1-247-722-11	CARBON 5.6K 5% 1/4W
R205	1-249-753-15	CARBON 4.7M 5% 1/4W
R206	1-249-753-15	CARBON 4.7M 5% 1/4W
R208	1-247-170-00	CARBON 43K 5% 1/4W

**Note:**  
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Ref.No.	Part No.	Description				
R209	1-247-152-00	CARBON	7.5K	5%	1/4W	
R210	1-249-464-11	CARBON	39K	5%	1/4W	
R211	1-249-465-11	CARBON	47K	5%	1/4W	
R212	1-249-465-11	CARBON	47K	5%	1/4W	
R213	1-247-722-11	CARBON	5.6K	5%	1/4W	
R214	1-247-693-11	CARBON	27	5%	1/4W	
R215	1-247-754-11	CARBON	1.5K	5%	1/2W	
R216	1-247-754-11	CARBON	1.5K	5%	1/2W	
R217	1-247-750-11	CARBON	680	5%	1/2W	
R218	1-249-462-11	CARBON	22K	5%	1/4W	
R219	1-249-465-11	CARBON	47K	5%	1/4W	
R220	1-247-749-11	CARBON	560	5%	1/2W	
R221	1-247-717-11	CARBON	2.2K	5%	1/4W	
R222	1-247-725-11	CARBON	10K	5%	1/4W	
R223	1-249-465-11	CARBON	47K	5%	1/4W	
R224	1-247-721-11	CARBON	4.7K	5%	1/4W	
R225	1-247-752-11	CARBON	1K	5%	1/2W	
R226	1-247-752-11	CARBON	1K	5%	1/2W	
R227	1-247-752-11	(E,WG,Canadian,UK) ...CARBON	1K	5%	1/2W	
R227	1-247-239-00	(AEP)...CARBON	910	5%	1/2W	
R228	1-247-752-11	(E,WG,Canadian,UK) ...CARBON	1K	5%	1/2W	
R228	1-247-239-00	(AEP)...CARBON	910	5%	1/2W	
R251	1-249-417-11	CARBON	1K	5%	1/4W	
R252	1-247-700-11	CARBON	100	5%	1/4W	
R253	1-247-717-11	CARBON	2.2K	5%	1/4W	
R254	1-247-722-11	CARBON	5.6K	5%	1/4W	
R255	1-249-753-15	CARBON	4.7M	5%	1/4W	
R256	1-249-753-15	CARBON	4.7M	5%	1/4W	
R258	1-247-170-00	CARBON	43K	5%	1/4W	
R259	1-247-152-00	CARBON	7.5K	5%	1/4W	
R260	1-249-464-11	CARBON	39K	5%	1/4W	
R261	1-249-465-11	CARBON	47K	5%	1/4W	
R262	1-249-465-11	CARBON	47K	5%	1/4W	
R263	1-247-722-11	CARBON	5.6K	5%	1/4W	
R301	1-247-713-11	CARBON	1K	5%	1/4W	
R302	1-249-599-11	CARBON	91K	5%	1/4W	
R303	1-249-668-11	CARBON	620	5%	1/2W	
R304	1-247-713-11	CARBON	1K	5%	1/4W	
R305	1-247-707-11	CARBON	390	5%	1/4W	
R306	△ 1-212-990-00	FUSIBLE	220	5%	1/2W	F
R307	△ 1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R308	△ 1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R309	1-217-611-00	METAL PLATE	0.1	10%	2W	
R310	1-217-611-00	METAL PLATE	0.1	10%	2W	
R311	△ 1-247-717-11	CARBON	2.2K	5%	1/4W	F
R312	1-249-460-11	CARBON	15K	5%	1/4W	
R313	△ 1-212-962-00	FUSIBLE	15	5%	1/2W	F
R314	△ 1-212-962-00	FUSIBLE	15	5%	1/2W	F
R315	△ 1-247-891-00	CARBON	330K	5%	1/4W	
R316	1-247-725-11	CARBON	10K	5%	1/4W	
R317	1-247-887-00	CARBON	220K	5%	1/4W	
R318	1-247-881-00	CARBON	120K	5%	1/4W	
R319	1-249-461-11	CARBON	18K	5%	1/4W	
R320	1-247-721-11	CARBON	4.7K	5%	1/4W	
R321	1-249-462-11	CARBON	22K	5%	1/4W	
R323	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R324	1-247-727-11	CARBON	10	5%	1/2W	
R325	1-247-747-11	CARBON	470	5%	1/2W	

Ref.No.	Part No.	Description				
R326	1-249-721-11	CARBON	100K	5%	1/2W	
R327	1-247-708-11	CARBON	470	5%	1/4W	
R351	1-247-713-11	CARBON	1K	5%	1/4W	
R352	1-249-599-11	CARBON	91K	5%	1/4W	
R353	1-249-668-11	CARBON	620	5%	1/2W	
R354	1-247-713-11	CARBON	1K	5%	1/4W	
R355	1-247-707-11	CARBON	390	5%	1/4W	
R356	△ 1-212-990-00	FUSIBLE	220	5%	1/2W	F
R357	△ 1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R358	△ 1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R359	1-217-611-00	METAL PLATE	0.1	10%	2W	
R360	1-217-611-00	METAL PLATE	0.1	10%	2W	
R361	△ 1-247-717-11	CARBON	2.2K	5%	1/4W	F
R362	1-249-460-11	CARBON	15K	5%	1/4W	
R363	△ 1-212-962-00	FUSIBLE	15	5%	1/2W	F
R364	△ 1-212-962-00	FUSIBLE	15	5%	1/2W	F
R365	1-247-891-00	CARBON	330K	5%	1/4W	
R374	1-247-727-11	CARBON	10	5%	1/2W	
R375	1-247-747-11	CARBON	470	5%	1/2W	
R376	1-249-721-11	CARBON	100K	5%	1/2W	
R377	1-247-708-11	CARBON	470	5%	1/4W	
R401	△ 1-216-459-00	METAL OXIDE	2.7K	5%	2W	F
R402	△ 1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R403	1-247-721-11	CARBON	4.7K	5%	1/4W	
R404	1-247-721-11	CARBON	4.7K	5%	1/4W	
R405	1-247-706-11	(E,AEP,UK,Canadian) ...CARBON	330	5%	1/4W	
R406	1-249-469-11	CARBON	100K	5%	1/4W	
R407	1-247-700-11	CARBON	100	5%	1/4W	
R408	1-249-469-11	CARBON	100K	5%	1/4W	
R409	1-247-713-11	CARBON	1K	5%	1/4W	
R410	1-247-713-11	CARBON	1K	5%	1/4W	
R411	1-247-725-11	CARBON	10K	5%	1/4W	
R412	1-249-484-11	CARBON	6.8	5%	1/2W	
R413	1-247-739-11	CARBON	100	5%	1/2W	
R414	1-247-138-00	CARBON	2K	5%	1/4W	
R415	1-247-700-11	CARBON	100	5%	1/4W	
R416	1-214-937-00	CARBON	1M	5%	1/2W	
R417	1-249-844-11	CARBON	56K	5%	1/2W	
R418	1-249-818-11	CARBON	4.7K	1%	1/2W	
R419	1-247-713-11	CARBON	1K	5%	1/4W	
R431	1-247-713-11	(WG)...CARBON	1K	5%	1/4W	
R432	1-247-713-11	(WG)...CARBON	1K	5%	1/4W	
R455	1-247-706-11	(E,AEP,UK,Canadian) ...CARBON	330	5%	1/4W	
R456	1-249-469-11	CARBON	100K	5%	1/4W	
R457	1-247-700-11	CARBON	100	5%	1/4W	
R458	1-249-469-11	CARBON	100K	5%	1/4W	
R459	1-247-713-11	CARBON	1K	5%	1/4W	
R460	1-247-713-11	CARBON	1K	5%	1/4W	
R461	1-247-725-11	CARBON	10K	5%	1/4W	
R462	1-249-484-11	CARBON	6.8	5%	1/2W	
R463	1-247-739-11	CARBON	100	5%	1/2W	
R465	1-247-700-11	CARBON	100	5%	1/4W	

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Ref.No.	Part No.	Description
R466	1-214-937-00	CARBON 1M 5% 1/2W
R467	1-249-844-11	CARBON 56K 5% 1/2W
R468	1-249-818-11	CARBON 4.7K 1% 1/2W
R469	1-247-713-11	CARBON 1K 5% 1/4W
R481	1-247-713-11	(WG)...CARBON 1K 5% 1/4W
R482	1-247-713-11	(WG)...CARBON 1K 5% 1/4W
R902	1-247-727-11	(WG)...CARBON 10 5% 1/2W
R903	1-247-727-11	(WG)...CARBON 10 5% 1/2W
RT301	1-237-455-11	RES, ADJ, CARBON 500
RT351	1-237-455-11	RES, ADJ, CARBON 500
RV101	1-238-448-11	RES, VAR, CARBON 150K/150K (BALANCE)
RV102	1-238-446-11	RES, VAR, CARBON 250K/250K (TREBLE)
RV103	1-238-447-11	RES, VAR, CARBON 25K/500K (BASS)
RV104	1-237-472-11	RES, VAR, CARBON 120K/120K (ATTENUATOR)
RY301	1-515-501-00	RELAY
S201	1-571-824-11	SWITCH, ROTARY (INPUT SELECTOR)
S202	1-571-826-11	SWITCH, ROTARY (INPUT SELECTOR)
S203	1-571-823-11	SWITCH, ROTARY SLIDE (REC OUT SELECTOR)
S204	1-571-828-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)
S205	1-571-827-11	SWITCH, PUSH (1 KEY) (MUTING)
S206	1-571-822-11	SWITCH, ROTARY SLIDE (SPEAKER)
S207	1-571-825-11	SWITCH, ROTARY (MODE)
S401	1-571-111-11	SWITCH, PUSH (1 KEY) (CARTRIDGE)
S501	⚠ 1-554-920-31	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)
S502	⚠ 1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR)
T1	⚠ 1-449-685-11	(Canadian)...TRANSFORMER, POWER
T1	⚠ 1-449-687-11	(WG).....TRANSFORMER, POWER
T1	⚠ 1-449-688-11	(AEP).....TRANSFORMER, POWER
T1	⚠ 1-449-689-11	(UK).....TRANSFORMER, POWER
T1	⚠ 1-449-690-11	(E).....TRANSFORMER, POWER
TM501	1-537-235-11	TERMINAL BOARD (SP)
TP301	1-535-135-00	BASE POST 14MM (10MM PITCH) 2P
TP351	1-535-135-00	BASE POST 14MM (10MM PITCH) 2P
VH2	*1-564-321-00	PIN, CONNECTOR 2P
VH3	1-564-320-00	PIN, CONNECTOR 2P
VH4	*1-564-321-00	(AEP,UK,WG)....PIN, CONNECTOR 2P
VH5	*1-565-792-11	PIN, CONNECTOR 2P
VH6	*1-564-321-00	(AEP,UK,WG)....PIN, CONNECTOR 2P
VH8	*1-564-241-00	PIN, CONNECTOR 4P
VH9	*1-560-595-21	TERMINAL (WITH BASE)
VH11	1-564-321-00	(Canadian,E)...PIN, CONNECTOR 2P
VH12	1-564-320-00	PIN, CONNECTOR 2P
VH20	*1-535-141-00	(E)...BASE POST 22MM (10MM PITCH) 4P

## ACCESSORY &amp; PACKING MATERIAL

3-786-976-11	(Canadian,UK,E)...MANUAL, INSTRUCTION
3-786-976-41	(AEP,WG).....MANUAL, INSTRUCTION
*4-929-219-01	CUSHION
*4-929-263-11	INDIVIDUAL CARTON

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